DOOSAN Document Transmittal Upper Trishuli-1 HEP (216MW)		Date 2022-03-01	DT No.: UT1-HEP-DHI-PC-D-0004	SHEET 1 OF 1
DOOSAN NEPAL BRANCH OFFICE	Address & Contact No. : Four Square Building, Naxal, Kathmandu, Nepal (P.O Box : 1387) + 977 1 692 3014	Project No. H20002	DOCUMENT DISPATCHED BY Courier Service ☐ Messenger ☐ Post-Air Freight ☐ Document System or E-mail ■ By hand ■	
DOCUMENT DISTRIBUTION	■ POWER CHINA (Subcontractor) ☐ Doosan's Site Office			
SUBJECT	Review Note RN-0067_Physical Modal Test Study Report of Desander Basin			

S. N.	REVIEW NOTE NO.	REVIEW STATUS	DWG. / DOC. NO.	REV.	DWG. TITLE / DOC. DESCRIPTION	REMARK
1	RN-0067	RR	UT1-C-000-CVL-DD-40011	0A	Physical Modal Test Study Report of Desander Basin	2 SHEET
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A : APPROVED
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DHI STAMP

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Discipline : Civil

UPPER TRISHULI-1 HEP (216MW)			
Client	**Nepal Water and Energy Development Company Private Limited**		
Owner's Engineer	**Tractebel Engineering GmbH / Jade Consult**		
REVIEW NOTE			
Contractor	**Doosan Heavy Industries & Construction Co., Ltd.**		
Title of the Document	Physical Model Test Study Report of Desander Basin		
Document No.	UT1-C-000-CVL-DD-40011	Revision	0A
Date of Documents	11.01.2022	Received Date	11.01.2022
Transmittal Form No.	UT1-HEP-DHI-D-0114		
Previous Review Date/Status	N/A	Prev. Review Note No.	N/A
Review Note No.	**RN-0067**	**Present Review Date**	**28.02.2022**
		Present Review Status	**RR**
A: Approved AN: Approved as Noted RR: Returned for Resubmission FI: For Information, only.			

1. **General**
   - Since the document is a "Test Report" which deals with the site component "Desander" the document No. should be ***UT1-C-030-CVL-TE-40011*** conform chapter *6.5 Document Identification* of *UT1-G-000-CMM-CD-80002 Project Design Agreement.*
   - Before execution of model tests the Contractor shall inform the Employer/ OE accordingly and submit respective documents (e.g. Method Statements of test execution).

2. **Chapter *1.2 Layout of Desander Basin***
   - The basic arrangement shall be as specified in the UT-1 EPC contract, Annex 13.
   - The naming of each partial structure/ component has to be clarified/ specified, e.g.: "flat service gate, box intake, working section (desander basin?), …
     These elements have to be clearly indicated in arrangement drawings (Layout, Longitudinal/ Cross Sections) which have to be part of chapter 1.2.
   - Dimensions have to be clarified and reflected in above mentioned arrangement drawings.

3. **Chapter 2.3 Gradation and adjustment of suspended particles**
   - The lower sediment fraction with particle sizes less than 0.20 mm does not need to be settled in the desander basin as contract requirement. However, eliminating this lower sediment fraction completely from the modelling has to be verified in the redesign of the desander model test.

4. Chapter *6 Physical Model Design and Fabrication*

- Model scale of 1:15 and modelling the sediment of about 1:2.87 has to be clarified.
- Measuring the velocity distribution across the sections of the three chambers and the balanced flow distribution into the three chambers as such has not been carried out, since only one single desander basin without proper simulation of the approach flow has been modelled. At first a smooth and even velocity distribution in each desander basin without sediment should be proven. With an unbalanced hydraulic flow velocity distribution across the three inflow sections, hydraulic calculations carried out and the tests themselves can only be considered valid partially only.

DISCLAIMER

Any approval will not release the Contractor from any of his obligations under the Contract.

Sebastian Beck, Chief Design Engineer